BUILDING THE TERTIARY INSTITUTION BUSINESS ENHANCEMENT MEASUREMENT MODEL

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ABSTRACT
Tertiary institutions are moving towards more flexible learning environments. Relationships between tertiary learning modes and student outcomes, or the influences between student outcomes and the delivered contributions of graduate students in the workplace have been approached indirectly by a range of partial studies. This paper employs a holistic view, and develops a Business Value Enhancement Measurement Model, which maps the tertiary institution learning offerings or modes into student learning outcomes, and then maps these via graduate students, into to a business enhancement approach. This paper sets the frameworks for tertiary institutions to more closely align their educational learning solutions towards business requirements, and possibly to enhance its graduate student's employability.

Key Words: Learning modes , tertiary education, business linkages graduate outcomes

INTRODUCTION

Tertiary institutions educate and instruct learners to acquire high levels of knowledge and skills (Barrie, 2006, 2007) and deliver learning enhanced student solutions (Holsapple & Lee-Post, 2006). They often engage learning cycles which operate in a similar manner to business 'plan-do-check-act' quality cycles (Finch, 2008). Thus both product and/or quality of service are captured, and student knowledge application solutions are continually revamped to best capture the learning requirements of the student cohort, and to align these with the requirements of both the external environment and the business world (Forbes & Hamilton, 2004).

Closely aligned, tertiary institution knowledge-application solutions (Hamilton, 2007) may capture combinations of traditional, blended or flexible learning modes (Cybinski & Selvananthan, 2005). These in-turn, may affect performance outcomes of the students. These measures (capturing teaching and learning effectiveness) are related to the student learning processes. Quality tertiary learning institutions aim to balance their tight budgets, meet student expectations and deliver targeted, business-acceptable graduate solutions (Peterson, Berenson, Misra & Radosevich, 2008).

LEARNING MODES AND LEARNING OUTCOMES

To illustrate flexibility, Collis and Moonen (2002) mapped degrees of flexibility and goal of activities into four quadrants of learning. Their model may be viewed from learning modes perspective as shown in Figure 1 – with four learning modes. It is possible to move from any learning mode to another – directly or indirectly.

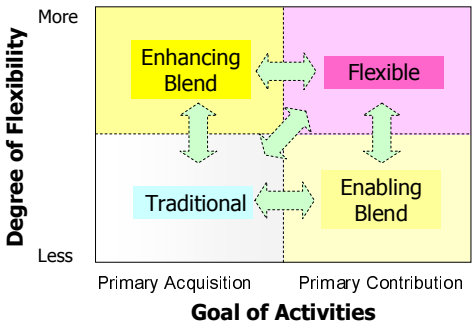

Figure 1: Learning Modes Transitions

Traditional learning is typically occurs in a face-to-face and teacher directed environment with person to person interactions in a live synchronous rich learning environment (Gamliel, & Davidovitz, 2005; McCarthy, & Anderson; 2000). Blended learning is a form of flexible delivery that encapsulates 'the what', 'the where', and 'the when' of learning (Hill, 2006). To deliver learning richness Graham and Bonk (2005) split blended learning into an enabling blended mode with additional ranges of student centered learning activities or into an enhancing blended mode with more flexible management approaches by students as to when and how to acquire agreed learning outcomes. While flexible learning encompasses the essence of flexible delivery but also capture the 'how' of the learning process like access, content, delivery style, logistics and productivity (Wade, Hodgkinson, Smith & Arfield, 1994; Collis & Moonen, 2002; Hill, 2006). Flexible learning mode approaches have appeal to individual independent learners (Van den Eynde, Newcombe, & Steel, 2007) seeking to balance their work-life-family commitments (Bryant, Campbell, & Kerr, 2003; Collis & Moonen, 2001; McInnis & Hartley, 2008).

Biggs (1993) hooked teaching to learning, but students learn in different ways (Trigwell & Prosser, 1991; Ramsden, 1992), and their learning is measured in many ways. Hence, tertiary institutions typically offer many combinations of learning modes, unique learning environments and learning activities. Hence, different learning modes are likely to influence the way students approach their learning, and so may influence their learning experience and learning outcomes.

GRADUATE STUDENT DELIVERED NEW BUSINESS ENHANCEMENT

Student acquired learning outcomes also house tertiary-learned skills (typically cognitive, interactive, and motor skills), and these, in-turn, may be linked into business-deployed, graduate tertiary student skills, and into the relevant business types where the graduate students often find their initial employment (Lowry, Molloy, & McGlennon, 2008). The capture is complex and Cully (2004) suggests student perception (or expectation) of the skills they may acquire at a tertiary institution which benefit them in their preferred choice area of business, will affect their tertiary learning engagement approaches. From a business perspective, Harvey (2000) emphasises employers' seek tertiary graduate students that may deliver them additional successes in the workplace –typically those with real abilities to both transfer, and apply knowledge, and with the ability to apply the student skills learned at the tertiary institution into the workplace. Thus, tertiary institutions delivering acquired student learning solutions that closely match with business requirements will likely be strongly sought after, and this would show on tertiary graduate students' employment preparation satisfaction measures (Martin et. al, 2000), and graduate student career progression (Nabi & Bagley, 1998).

THE BUSINESS VALUE ENHANCEMENT MEASUREMENT MODEL

Tertiary institution learning mode processes are linked to student learning deliverables, and then to a new graduate student, employee-delivered, business-enhancements value set. This new employee, business-enhancements value set is measured via a set of graduate student employee performance and business performance contributions, and a resultant business satisfaction measure as shown in Figure 2.

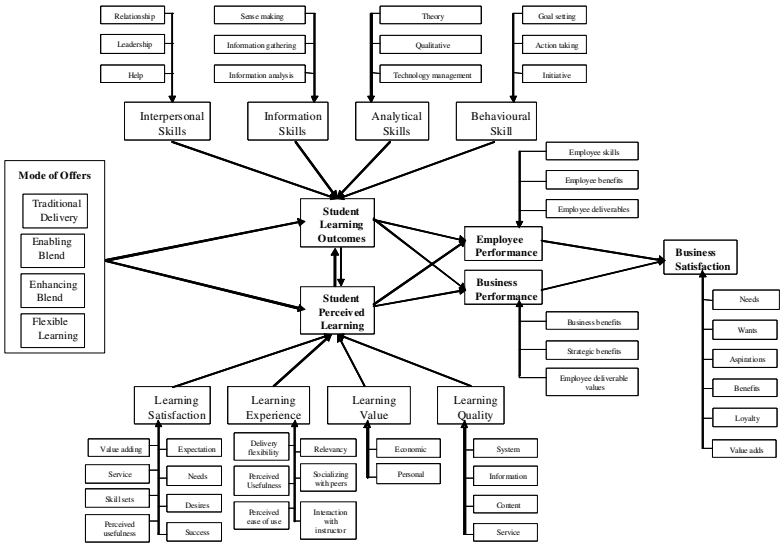

Figure 2: The Business Value Enhancement Measurement Model

The Business Value Enhancement Framework maps the relevant tertiary institution learning mode delivery options, to student-acquired learning skills-sets – perceived learning and learning outcomes, and relates these to the business setting where graduate-student, employee-delivered business enhancement value measures are captured.

Traditional learning is typically face-to-face learning operating under teacher controlled student directed learning situations where content and knowledge mastery are acquired through drills and practice, and where the content is not necessarily learned in context of the situation (Gamliel & Davidovitz, 2005; McCarthy & Anderson, 2000). Blended learning – enabling or enhancing and it encapsulates learning format that combines several different delivery methods like event-based activities, such as face-to-face classrooms, live e-learning, online delivery (Petrova, 2000), and self-paced learning (Delialioglu & Yildirim, 2008). Blended learning provides greater flexibility in teaching and learning (Brew, 2008; Georgouli, Skalkidis, & Guerreiro, 2008).

Many options are available to measure and assess performance across tertiary student learning. Tertiary institutions benchmark and rank themselves (Dill & Soo, 2005; Stella & Woodhouse, 2007; Taylor and Braddock, 2007), teaching staff are measured (Dill & Soo, 2005; Taylor and Braddock, 2007), student delivery approaches are assessed (Clouse & Evans, 2003), student outcomes are assessed (Barrie, 2007), and occasionally business enhancement from tertiary institution graduates student is analysed (Martin, Milne-Home, Barrett, Spalding, & Jones, 2000).

Student learning is driven by perceptions and relevant outcomes. Learning satisfaction typically measures expectations, needs, desires or experiences, success, value adds, eco value, services, skills sets, perceived learning usefulness, and the like (Alves & Raposo, 2007; Johnson, Hornik & Salas, 2008; Sun, Tsai, Finger & Chen, 2008). Learning experiences capture course delivery flexibility, perceived experiences usefulness, perceived ease of use, relevancy, interactions or socializing with peers, interactions with instructors (Davis & Wong, 2007; Douglas, McClelland & Davies, 2008; Sun et. al., 2008). Learning value houses perceived economic value perceptions such as: obtaining a good job, good investment (value for money), student skills achieved (matched to employer requirements) (Alves & Raposo, 2007; Jambulingam, Kathuria & Doucette, 2005). Learning quality captures dimensions including: global applicability, perceived teacher quality, perceived course and content quality, system quality, technology quality, information quality, service quality (Alves & Raposo, 2007; Holsapple & Lee-Post, 2006; Johnson et. al., 2008; Sun et. al., 2008).

Learning outcomes may be viewed by business as graduate student attributes, core or key skills; and employability skills like: employers' skills profiles, employers' professional accreditation requirements, and graduate student skill profiles), desirable learning outcomes (leadership skills, communication skills, interpersonal skills, analytical skills, decision-making skills, technological skills, information gathering skills and behavioural skills), and employability skills (Boyatzis & Kolb, 1995; Duke, 2002; Curtis & McKenzie, 2002).

Many researchers (Harvey, 2000; Clearly et al. 2007) have investigated employers graduate student selection processes and tertiary institution deliverables and have found employee deliverable business benefits were also desirable. Such measures contributed to business satisfaction. Employee skills (Silva & McFadden, 2005), business deliverables (Chen, 2008; Spiteri & Dion, 2004), and business performance resulting from graduate employee contributions have also been found to contribute to business satisfaction (Daigle, Hayes & Hughes, 2007; Jayawardhena, Souchon, Farrell, & Glanville, 2007). While learning satisfaction has been linked to tertiary institution learning deliverables, it is projected learning satisfaction will also relate to business enhancement - as measured by employee performance and business performance and then to business satisfaction and captured as work related deliverables (Clem, Promes, Glickman, Shah, Finkel, Pietrobon & Cairns, 2008), learned knowledge, relevance, responsibility and independence (Kanet & Barut, 2003; organizational benefits (Chitturi, Raghunathan & Mahajan, 2008) and business loyalty (Dholakia & Morwitz, 2002).

CONCLUSION

The 'Business Value Enhancement Measurement Model' for the tertiary education sector has empirically developed, well supported alignment modes and measurement indicators. It is now being empirically analysed using a structural equation modeling approach. The model depicts fifteen factor blocks, with possibly two mediating variables. Assuming the measurement items build onto the factors shown, and that factor score regression weights offer suitable factor loadings, then an alignment model is projected to emerge. Thus, significant pathways linking between business value enhancement (created by the graduate student's perceived performances), tertiary institution learning modes offered, student-perceived, tertiary-acquired, learning acquisition sets, and student-perceived, tertiary-acquired, skills outcome sets, should emerge. If successful, this research offers possibilities for tertiary institutions (particularly those targeting student employment outcomes such as business schools, health services) to more closely align (or reposition) their educational learning solutions towards business requirements. A close alignment between a tertiary institution (through its learning mode student offerings) with targeted relevant business area requirements is projected to enhance its graduate student's employability. This, in-turn, may in the future, lead to increased successes in tertiary institution marketability – especially in regard to better delivering business-value-adding, graduate student requirements.

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